

FIG. 2

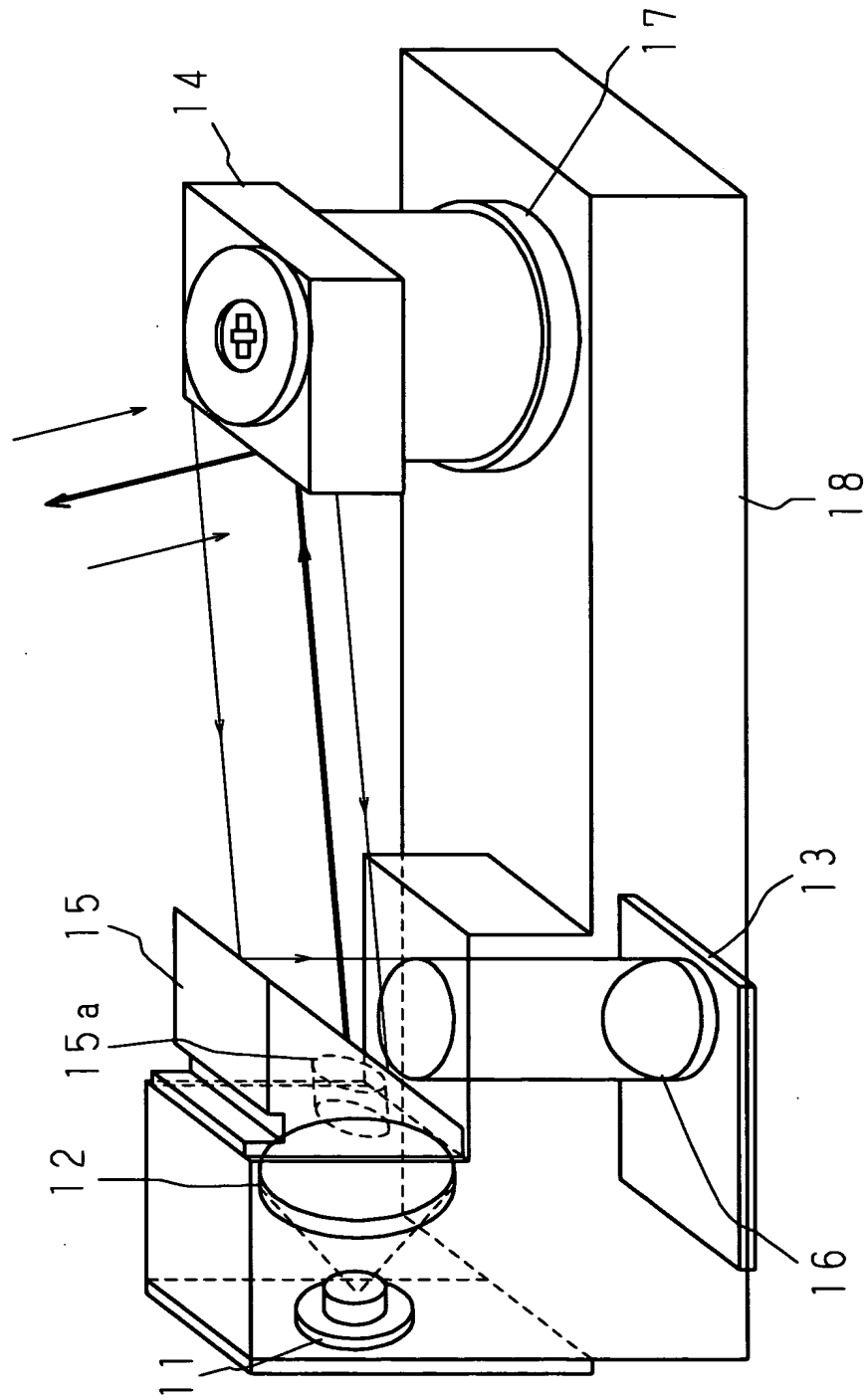
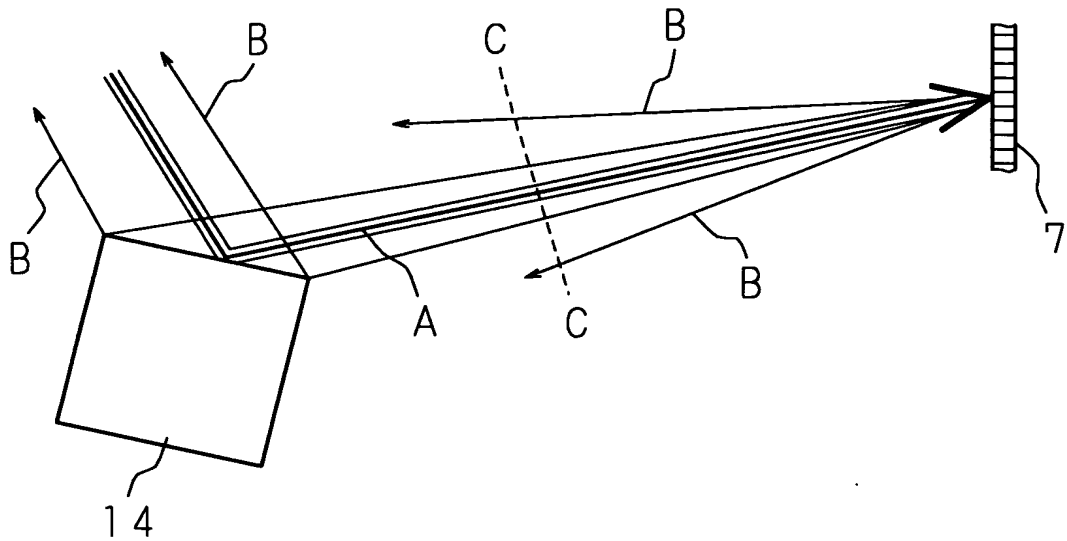


FIG. 3

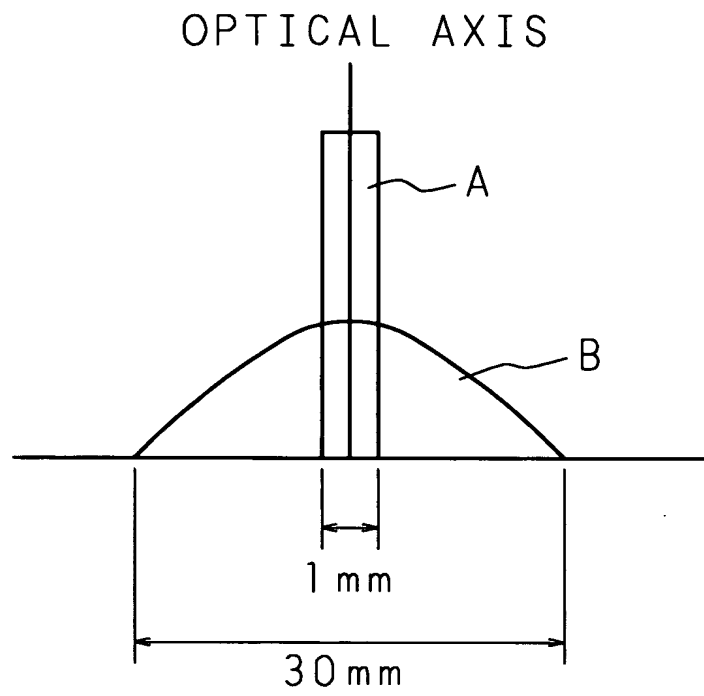


A: SCANNING LIGHT
B: REFLECTED LIGHT

09875084-060701

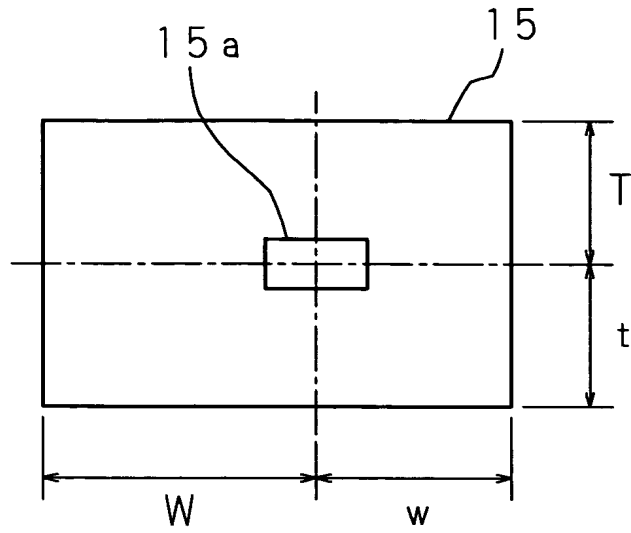
4/21

FIG. 4



09875084-060701

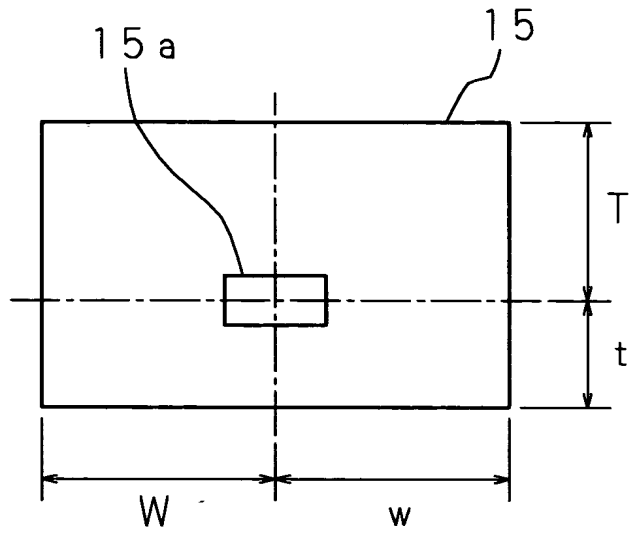
FIG. 5



$$\begin{aligned} W &> w \\ T &= t \end{aligned}$$

09875084.060701

FIG. 6

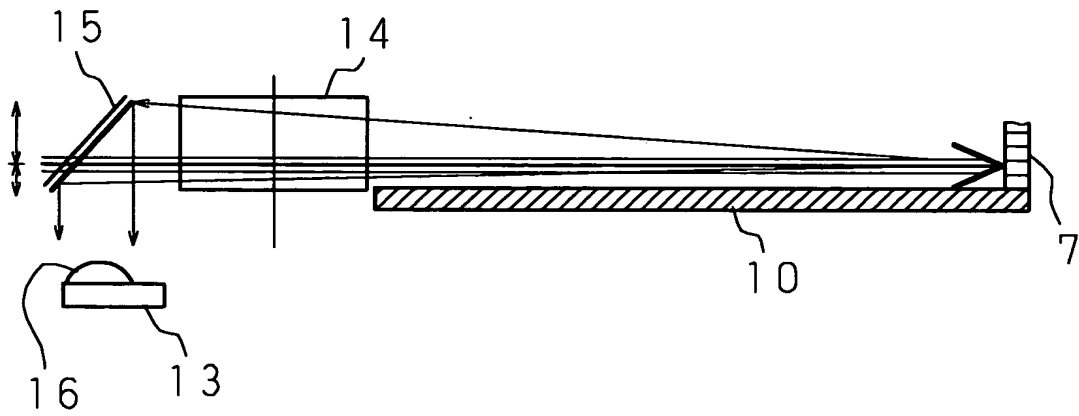


$$W = w$$

$$T > t$$

09875084.060701

FIG. 7



05875084-060701
10/090-4305/850

FIG. 8

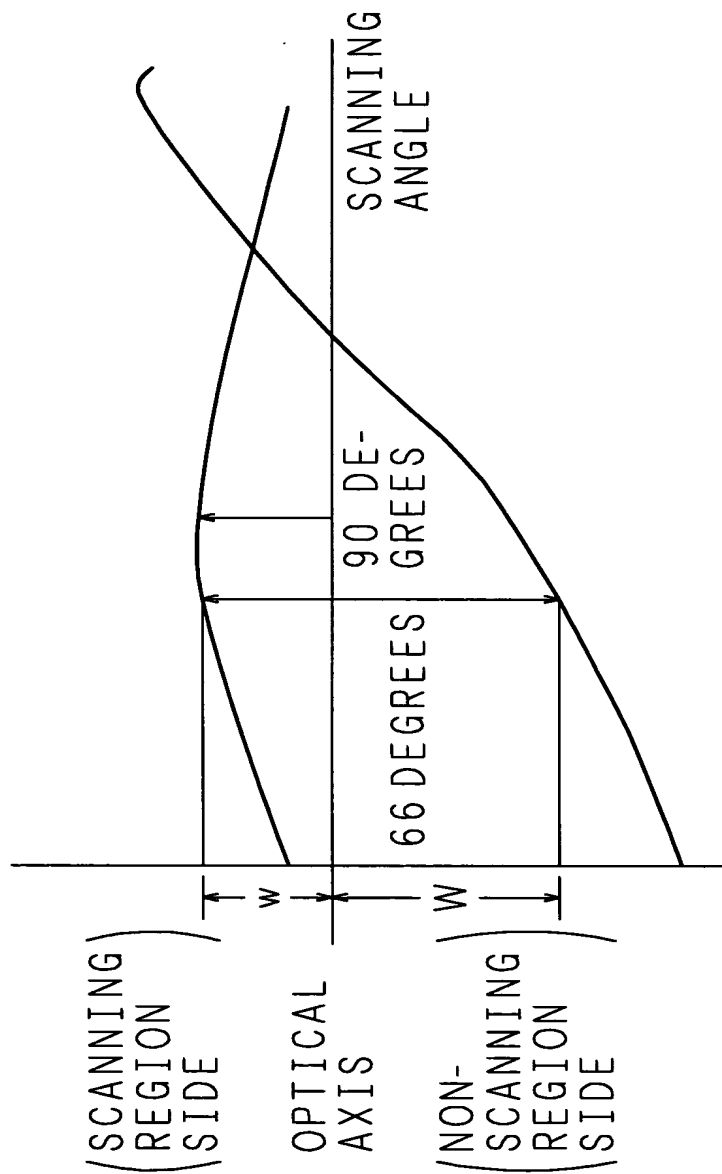
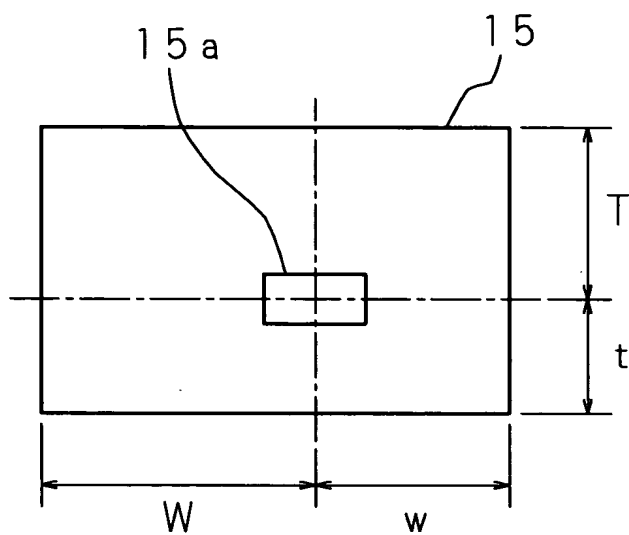


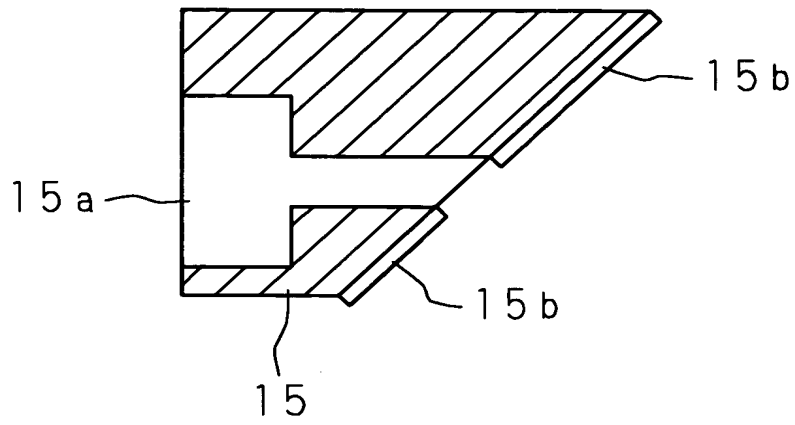
FIG. 9



$$\begin{aligned} W &> w \\ T &> t \end{aligned}$$

09875084.060701

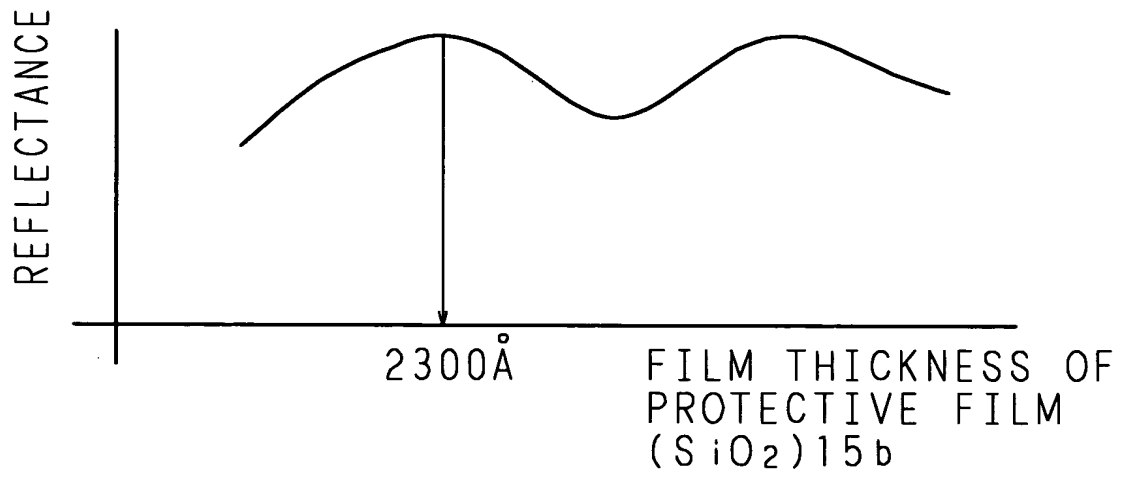
FIG. 10



09875084.060701

11/21

FIG. 11



09875084.060701
107090-48057860

12/21

FIG. 12

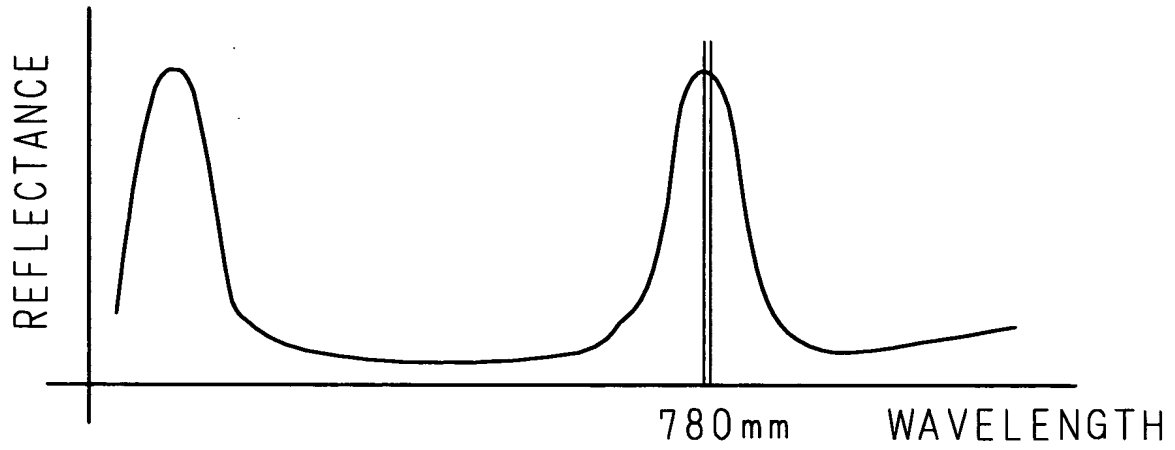


FIG. 13

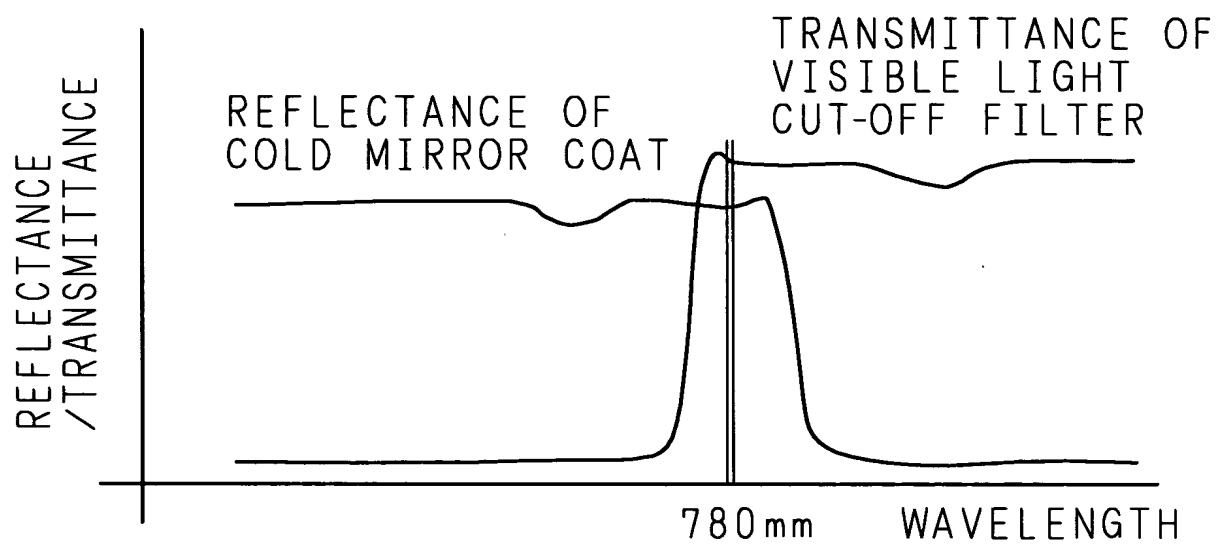
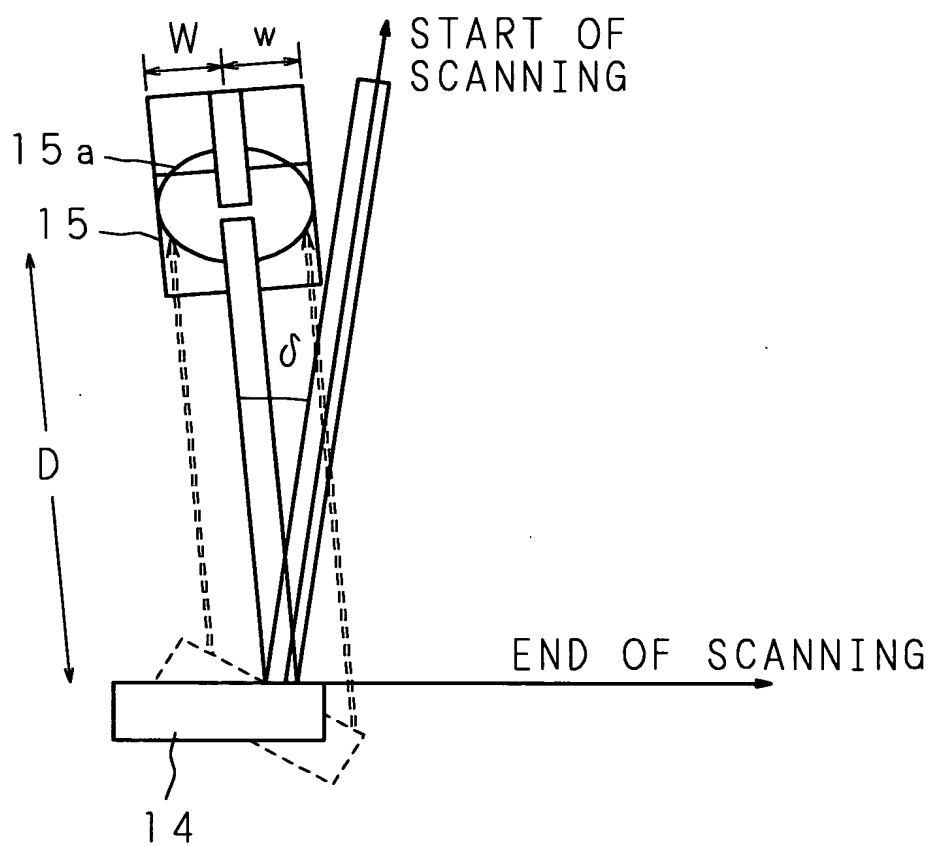
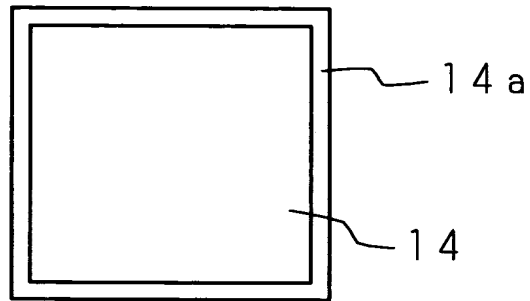
09375034-060701
10/09/00-1005/060

FIG. 14



09875084-060701

FIG. 15



09875084.060701
T070900.49057860

FIG. 16

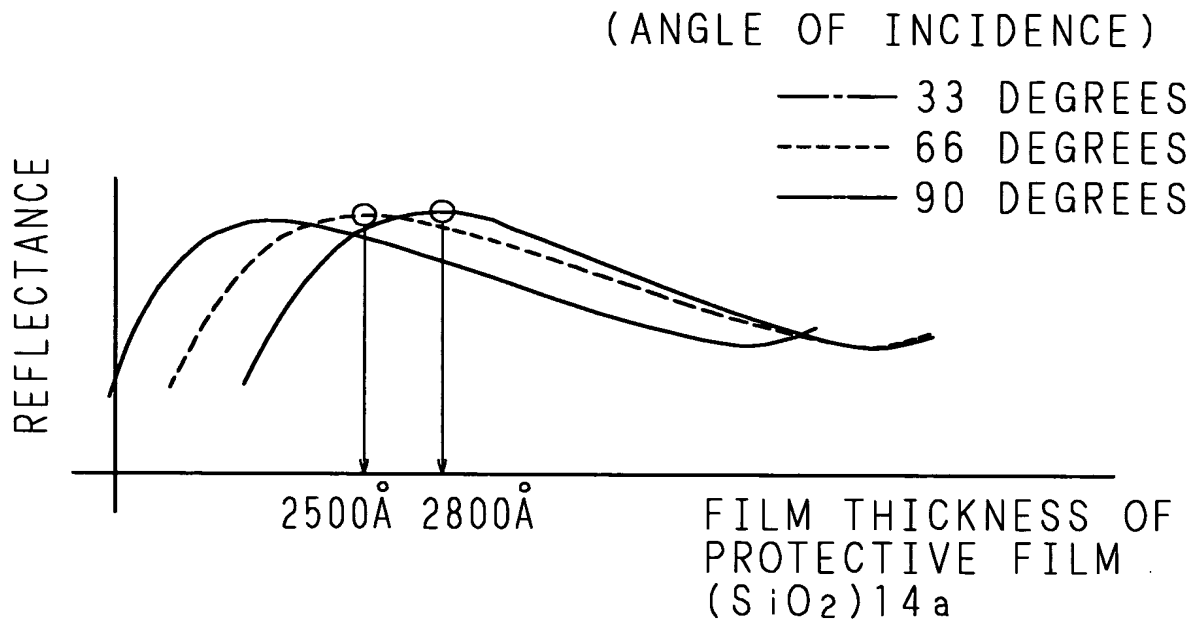
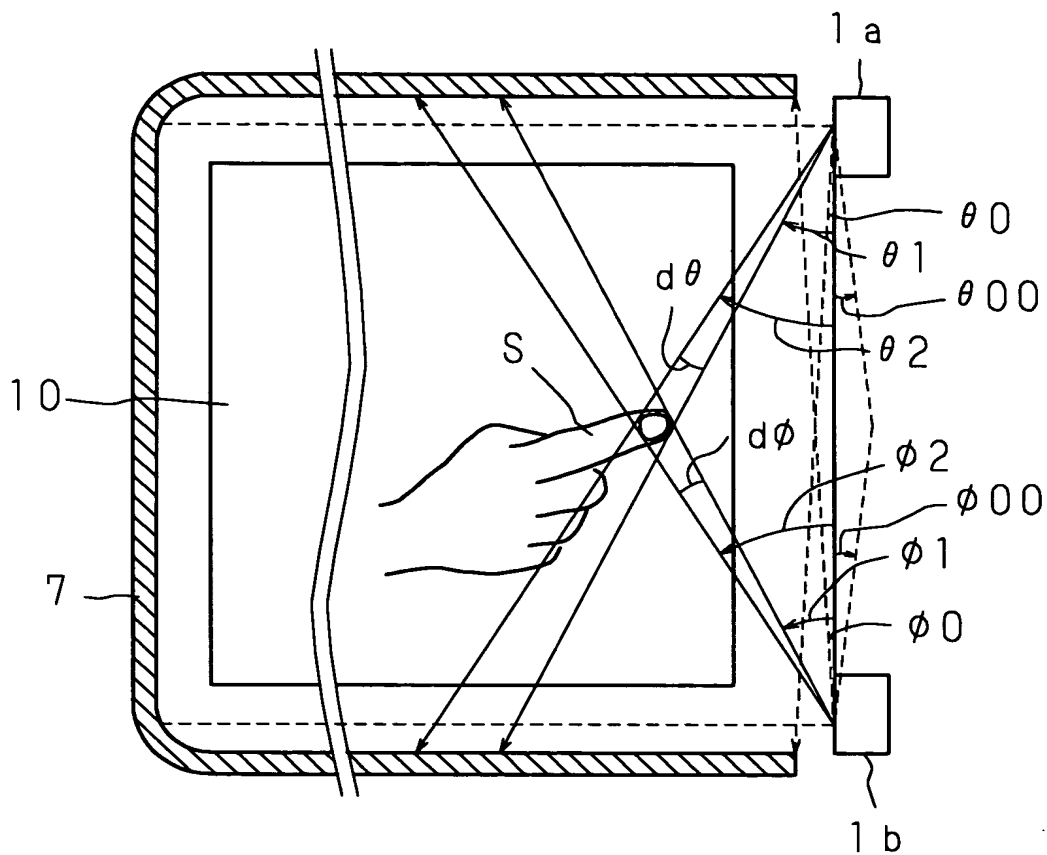
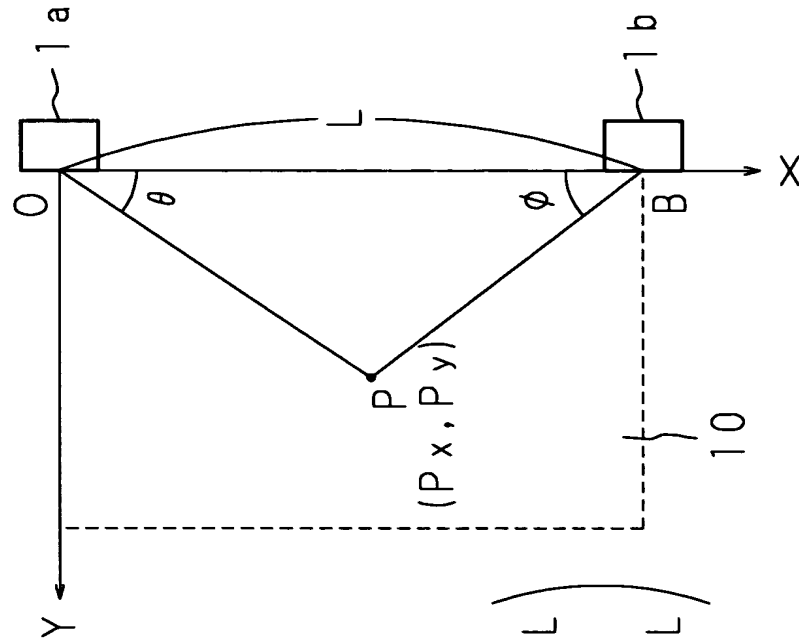
09875084.060701
107090.48057860

FIG. 17



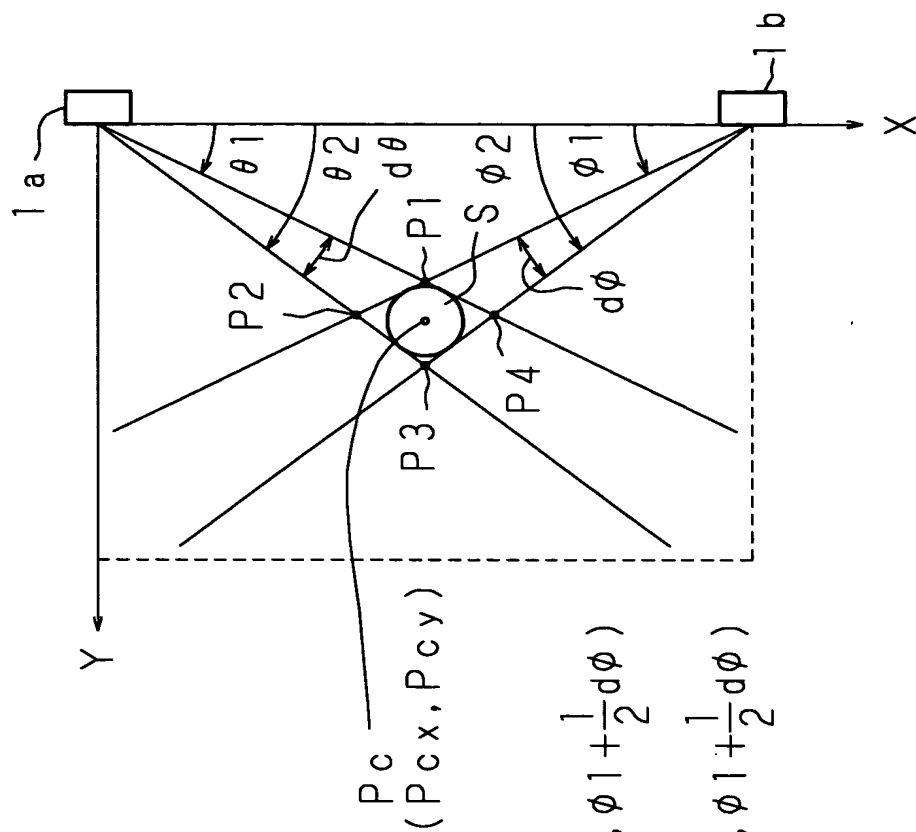
05875084.060701

FIG. 18



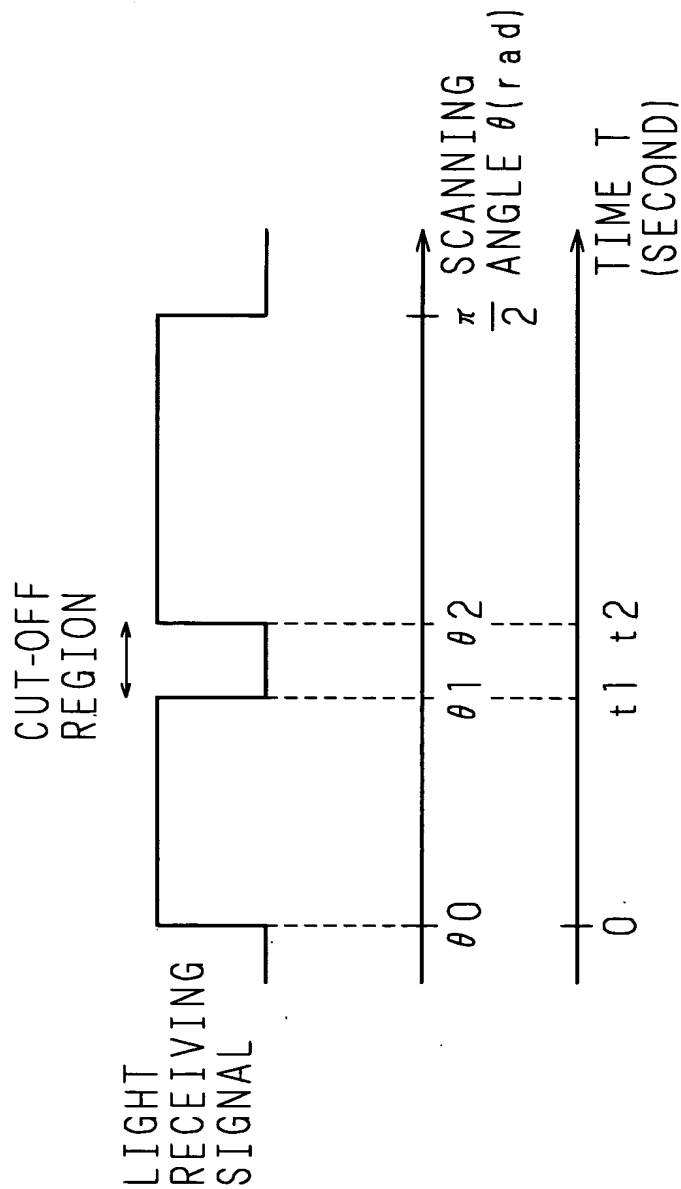
$$\begin{pmatrix} P_x(\theta, \phi) \\ P_y(\theta, \phi) \end{pmatrix} = \begin{pmatrix} \frac{\tan \phi}{\tan \theta + \tan \phi} L \\ \frac{\tan \theta \tan \phi}{\tan \theta + \tan \phi} L \end{pmatrix}$$

FIG. 19



$$\begin{pmatrix} P_{cx}(\theta, \phi) = P_{cx}(\theta 1 + \frac{1}{2}d\theta, \phi 1 + \frac{1}{2}d\phi) \\ P_{cy}(\theta, \phi) = P_{cy}(\theta 1 + \frac{1}{2}d\theta, \phi 1 + \frac{1}{2}d\phi) \end{pmatrix}$$

FIG. 20



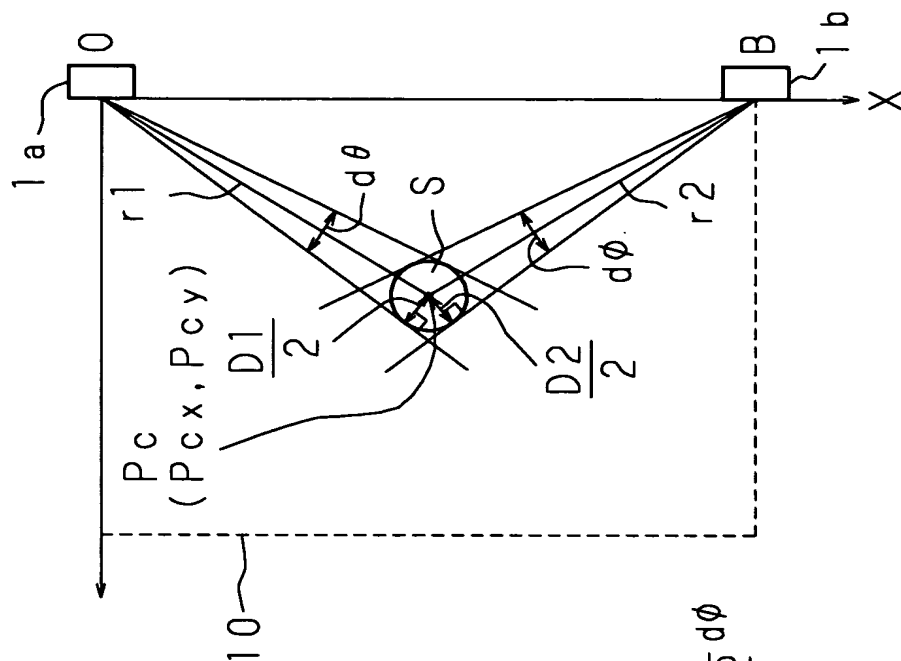
$$\theta = \omega t$$

$$\left(\begin{array}{l} \theta_1 = \omega t_1 \\ \theta_2 = \omega t_2 \end{array} \right)$$

FIG. 21

$$\left(\begin{array}{l} OP_c = r1 = \sqrt{P_{cx}^2 + P_{cy}^2} \\ BP_c = r2 = \sqrt{(L - P_{cx})^2 + P_{cy}^2} \end{array} \right.$$

$$\left(\begin{array}{l} D1=2\cdot r1\cdot \sin\frac{1}{2}\mathrm{d}\theta=2\sqrt{P_{cx}^2+P_{cy}^2}\cdot \sin\frac{1}{2}\mathrm{d}\theta \\ D2=2\cdot r2\cdot \sin\frac{1}{2}\mathrm{d}\phi=2\sqrt{(L-P_{cx})^2+P_{cy}^2}\cdot \sin\frac{1}{2}\mathrm{d}\phi \end{array} \right)$$



D1,D2: DIAMETER OF CROSS
SECTION OF INDICATOR